

PATENT

I hereby certify that on the date specified below, this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

February 3, 2004
Date

Lawrence Teague
Lawrence Teague

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Robert Déziel et al.
Application No. : 10/628,086
Filed : July 25, 2003
For : INHIBITORS OF RNA DEPENDENT RNA POLYMERASE AND
USES THEREOF

Art Unit : 1632
Docket No. : 660081.443
Date : February 3, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents:

In accordance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98, applicants wish to make known to the U.S. Patent and Trademark Office the references set forth on the attached forms PTO-1449 (copies of the cited references are enclosed). Applicants also wish to disclose and have officially considered the following co-pending applications by the same assignee, listed on page 4 of the attached forms PTO-1449:

Application No.	Title	Filed
10/326,573 (2003/0153744)	ANTI-VIRAL 7-DEAZA L-NUCLEOSIDES	December 20, 2002
10/627,586	ANTI-VIRAL 7-DEAZA D-NUCLEOSIDES AND USES THEREOF	July 25, 2003

As to any reference supplied, applicants do not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserve the right to traverse or antedate any such reference, as by a showing under 37 C.F.R. § 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

Applicants note that reference AN (JP 2002-302498) is written in Japanese. Accordingly, applicants respectfully submit that the American Chemical Society Markush database abstract (reference CM) provides an English language explanation of the relevance.

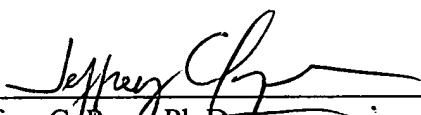
Applicants also note that reference CH (Jung and Schmidt, "Spezifische Synthese von Nucleosid-5'-carbonsäure-Derivaten mit Pyrimidinen als heterocyclische Base," *Chemische Berichte* 113: 1775-1789, 1980) is written in German. Applicants respectfully direct the Examiner's attention to the Abstract in English located on the first page of the reference (page 1775).

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Applicants believe this Information Disclosure Statement has been timely filed, however, the Director is authorized to charge any fee due by way of this Information Disclosure Statement to our Deposit Account No. 19-1090.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC



Jeffrey C. Pepe, Ph.D.
Registration No. 46,985

Enclosures:

Postcard
Transmittal Form
Form PTO-1449 (5 Sheets)
Cited References (52)

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
Phone: (206) 622-4900
Fax: (206) 682-6031

JCP:ljt 452261

FORM PTO-1449 (REV. 7-80) INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 660081.443	APPLICATION NO. 10/628,086
	APPLICANTS Robert Déziel et al.			
	FILING DATE July 25, 2003		GROUP ART UNIT 1632	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	4,029,884	06/14/77	Stein et al.	536	26	
	AB	4,385,112	05/24/83	Misaki et al.	435	6	
	AC	4,522,811	06/11/85	Eppstein et al.	514	2	
	AD	5,138,045	08/11/92	Cook et al.	536	27	
	AE	5,175,266	12/29/92	Varma et al.	536	22	
	AF	5,223,618	06/29/93	Cook et al.	544	276	
	AG	5,378,825	01/03/95	Cook et al.	536	25.34	
	AH	5,602,240	02/11/97	De Mesmaeker et al.	536	22.1	
	AI	5,716,637	02/10/98	Anselem et al.	424	450	
	AJ	5,792,608	08/11/98	Swaminathan et al.	435	6	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AK ✓	EP 515156 B1	02/07/96	EPO		
	AL ✓	EP 799834 A1	10/08/97	EPO		
	AM ✓	EP 1162196 A1	12/12/01	EPO		
	AN ✓	JP 2002-302498 A	10/18/02	Japan	X	
	AO	WO 98/50047	11/12/98	WIPO		


OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AP ✓	Baker, J.J. et al., "5'-Substituted-5'-Deoxy Nucleosides," <i>Tetrahedron</i> 30: 2939-2943, 1974.
	AQ ✓	Classon and Samuelsson, "Synthesis of 5-Iodo-1-(sodium 2-deoxy-β-D-ribofuranosyluronate)uracil and 5-Iodo-1-(sodium β-D-ribofuranosyluronate)uracil," <i>Acta Chemica Scandinavica B39(6)</i> : 501-504, 1985.
	AR ✓	Elliot, R.D. et al., "Nitrosoureido Nucleosides as Potential Inhibitors of Nucleotide Biosynthesis," <i>Journal of Medicinal Chemistry</i> 31(1): 250-254, 1988.

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 660081.443	APPLICATION NO. 10/628,086
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)			APPLICANTS Robert Déziel et al.	
			FILING DATE July 25, 2003	GROUP ART UNIT 1632

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA	5,834,607	11/10/98	Manoharan et al.	536	22.1	
	BB	5,961,970	10/05/99	Lowell et al.	424	93.1	
	BC	6,232,463	05/15/01	Cook et al.	536	25.3	
	BD	✓ 2002/0183502	12/05/02	Mesmaeker et al.	536	23.1	
	BE	✓ 2003/0050320	03/13/03	Hashimoto et al.	514	299	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	BF	✓ WO 00/06529	02/10/00	WIPO		
	BG	✓ WO 00/10573	03/02/00	WIPO		
	BH	✓ WO 00/13708	03/16/00	WIPO		
	BI	✓ WO 00/18231	04/06/00	WIPO		
	BJ	✓ WO 01/77091	10/18/01	WIPO		
	BK	✓ WO 01/90121	11/29/01	WIPO		
	BL	✓ WO 02/04425	01/17/02	WIPO		
	BM	✓ WO 02/057287	07/25/02	WIPO		
	BN	✓ WO 02/057425	07/25/02	WIPO		
	BO	✓ WO 02/06246	01/24/02	WIPO		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	BP	✓ Henn, T.F.G. et al., "Synthesis of 2'-Deoxyuridine and 5-Fluoro-2'-deoxyuridine Derivatives and Evaluation in Antibody Targeting Studies," <i>Journal of Medicinal Chemistry</i> 36(11): 1570-1579, May 28, 1993.
	BQ	✓ Imai and Honjo, "Synthesis of 5-Substituted Pyrimidine Nucleosides," <i>Chemical & Pharmaceutical Bulletin</i> 13(1): 7-16, January 1965.
	BR	✓ Inaki, Y. et al., "Isopoly-L-Ornithine Derivatives of Thymine and Thymidine," <i>Nucleosides & Nucleotides</i> 17(1-3): 339-350, 1998.

EXAMINER	DATE CONSIDERED
----------	-----------------

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV. 7-80) INFORMATION DISCLOSURE STATEMENT (Use additional sheets if necessary)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 660081.443	APPLICATION NO. 10/628,086
	APPLICANTS Robert Déziel et al.		
	FILING DATE July 25, 2003	GROUP ART UNIT 1632	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
CA						

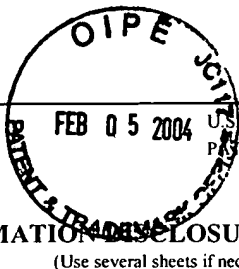
FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	CB	✓ WO 02/100152	12/19/02	WIPO		
	CC	✓ WO 03/007945	01/30/03	WIPO		
	CD	✓ WO 03/010141	02/06/03	WIPO		
	CE	✓ WO 03/026589	04/03/03	WIPO		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

CF	✓	Järlebank, L. et al., "Peptidyl Conjugates of Adenosine 5'-Carboxylic Acid Synthesized and Evaluated as Ligands for P2 Purinoceptors," <i>Biochemical and Biophysical Research Communications</i> 229(2): 363-369, 1996.
CG	✓	Jones, A.S. et al., "The Chromium Trioxide-Pyridine Oxidation of Deoxyribonucleosides and Deoxyribonucleotides," <i>Carbohydrate Research</i> 1(3): 187-195, November 1965.
CH	✓	Jung and Schmidt, "Spezifische Synthese von Nucleosid-5'-carbonsäure-Derivaten mit Pyrimidinen als heterocyclische Base," <i>Chemische Berichte</i> 113: 1775-1789, 1980.
CI	✓	Kawana, M. et al., "Nucleoside Peptides. III. The Synthesis of N-[1-(9-Adenyl)-β-D-ribofuranuronosyl] Derivatives of Certain Amino Acids and Peptides," <i>Journal of Organic Chemistry</i> 37(2): 288-291, 1972.
CJ	✓	Kim, K.-H. et al., "Synthesis and Biological Activity of the New 5-Fluorocytosine Derivatives, 5'-Deoxy-N-alkyloxycarbonyl-5-fluorocytosine-5'-carboxylic Acid," <i>Bioorganic & Medicinal Chemistry Letters</i> 12: 483-486, 2002.
CK	✓	Kolykhalov, A.A. et al., "Hepatitis C Virus-Encoded Enzymatic Activities and Conserved RNA Elements in the 3' Nontranslated Region Are Essential for Virus Replication In Vivo," <i>Journal of Virology</i> 74(4): 2046-2051, February 2000.
CL	✓	Lindsay, K., "Therapy of Hepatitis C: Overview," <i>Hepatology</i> 26(3 Suppl. 1): 71S-77S, September 1997.
CM	✓	Matsuba, Y. et al., "Industrial manufacture of nucleosides," MARPAT Database (American Chemical Society Markush Database) Accession No. 137:309602, 2002. See also JP 2002-302498 (reference AN).

EXAMINER	DATE CONSIDERED
* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).	

FORM PTO-1449
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
660081.443APPLICATION NO.
10/628,086

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS

Robert Déziel et al.

FILING DATE

July 25, 2003

GROUP ART UNIT

1632

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	CA						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	CB					
	CC					
	CD					
	CE					

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	CF	Pehk and Uri, "Synthesis and Structural Characterization of Conjugates of Adenosine and Tetra-Aspartate, Novel Analogs of ATP," <i>Bioorganic & Medicinal Chemistry Letters</i> 7(17): 2159-2164, 1997.
	CG	Schinazi, R.F. et al., "Synthesis and Biological Activities of Some Uronic Acids, Uronates, Uronamides, and Urononitriles of Pyrimidine Nucleosides," <i>Journal of Medicinal Chemistry</i> 21(11): 1141-1146, 1978.
	CH	
	CI	
	CJ	
	CK	
	CL	
	CM	

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
660081.443APPLICATION NO.
10/628,086

INFORMATION DISCLOSURE STATEMENT

(Use additional sheets if necessary)

APPLICANTS

Robert Déziel et al.

FILING DATE

July 25, 2003

GROUP ART UNIT

1632

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	DA	2003/0153744	08/14/03	Mekouar et al.	536	27.2	
	DB						
	DC						
	DD						
	DE						
	DF						
	DG						
	DH						
	DI						
	DJ						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	DK					
	DL					
	DM					
	DN					
	DO					

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	DP	Mekouar, K. et al., "Anti-Viral 7-Deaza D-Nucleosides and Uses Thereof," U.S. Patent Application No. 10/627,586, filed July 25, 2003.
	DQ	
	DR	

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).



TRANSMITTAL FORM

(To be used for all correspondence
after initial filing)

Application Number	10/628,086
Filing Date	July 25, 2003
First Named Inventor	Robert Déziel
Art Unit	1632
Examiner Name	
Attorney Docket No.	660081.443

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> CD(s), Number of CD(s) _____
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Request for Corrected Filing Receipt	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Amendment/Response	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to Group (<i>Appeal Notice, Brief, Reply Brief</i>)
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Declaration	<input checked="" type="checkbox"/> Return Receipt Postcard
<input checked="" type="checkbox"/> Information Disclosure Statement; Form PTO-1449 (5 Sheets)	<input type="checkbox"/> Statement under 37 CFR 3.73(b)	<input type="checkbox"/> Additional Enclosure(s) (please identify below): _____ _____ _____
<input checked="" type="checkbox"/> 52 Cited References	<input type="checkbox"/> Terminal Disclaimer	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Response to Missing Parts under 37 C.F.R. 1.52 or 1.53		
<input type="checkbox"/> Response to Missing Parts/Incomplete Application		

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Individual Name	Jeffrey C. Pepe, Ph.D. Reg. No. 46,985	Customer Number 00500
Signature		
Date	February 3, 2004	

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Lawrence Teague	
Signature		Date: February 3, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
4452268